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IAP6 Rec'd PCT/PTO 17 JAN 2006

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q76643

Fumio MATSUMOTO

Appln. No.: National Stage of PCT/JP2004/010555

Confirmation No.: Unknown

Group Art Unit: Unknown

Filed: January 17, 2006

Examiner: Unknown

For: InP SINGLE CRYSTAL, GaAs SINGLE CRYSTAL, AND METHOD FOR  
PRODUCTION THEREOF

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. §§ 1.97 and 1.98**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

A copy of an International Search Report in a counterpart application is submitted herewith. The USPTO should receive copies of the references cited in the International Search Report from the International Bureau. Applicant will furnish any missing references upon request.

The present Information Disclosure Statement is being filed: (1) No later than three months from the application's filing date; (2) Before the mailing date of the first Office Action

INFORMATION DISCLOSURE STATEMENT  
Appln. No.: National Stage of PCT/JP2004/010555  
Attorney Docket No. Q76643

on the merits (whichever is later); or (3) Before the mailing date of the first Office Action after filing a request for continued examination (RCE) under §1.114, and therefore, no Statement under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

In compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for foreign language documents, Applicant encloses herewith a copy of an English-language International Search Report from the International Searching Authority in the International Application citing such documents, including at least that portion of the International Search Report indicating the degree of relevance found by the International Searching Authority.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

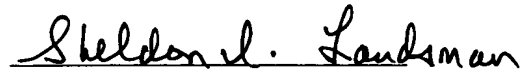
Respectfully submitted,

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23373

CUSTOMER NUMBER

  
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Registration No. 25,430

Date: January 17, 2006

Substitute for Form 1449 A & B/PTO  <b><u>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</u></b>  <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
		Application Number		National Stage of PCT/JP2004/010555	
		Confirmation Number		Unknown	
		Filing Date		January 17, 2006	
		First Named Inventor		Fumio MATSUMOTO	
		Art Unit		Unknown	
		Examiner Name			
Sheet		1	of	2	Attorney Docket Number Q76643

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number	Kind Code <sup>2</sup> <i>(if known)</i>		
		US			
		US			

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> <i>(if known)</i>			
		EP	0 971 052	A	01/12/2000	MITSUBISHI CHEM. CORP.	
		EP	0 992 618	A	04/12/2000	JAPAN ENERGY CORP.	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	Translation <sup>6</sup>
		GAULT: "A NOVEL APPLICATION OF THE VERTICAL GRADIENT FREEZE METHOD TO THE GROWTH OF HIGH QUALITY III-V CRYSTALS", JOURNAL OF CRYSTAL GROWTH, NORTH-HOLLAND PUBLISHING CO. AMSTERDAM, NL, Vol. 74, No. 3, 1986, pages 491-506, XP002121188, ISSN: 0022-0248	
		Y YABUHARA, ET AL, "HIGH QUALITY InP SUBSTRATES GROWN BY THE VCZ METHOD" INDIUM PHOSPHIDE AND RELATED MATERIALS, 1996. IPRM '96., EIGHTH INTERNATIONAL CONFERENCE ON SCHWABISCH-GMUND, GERMANY 21-25 April 1996, NEW YORK, NY, USA, IEEE, US, April 21, 1996, pages 35-38, XP010157617, ISBN: 0-7803-3283-0	
		YASUMASA OKADA, ET AL, INSTITUTE OF PHYSICS: "DISLOCATION ELIMINATION IN VERTICAL GRADIENT FREEZE GROWN GAAS SINGLE CRYSTALS" GALLIUM ARSENIDE AND RELATED COMPOUNDS., JERSEY, 24-27 SEPT., 1990, PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON GALLIUM ARSENIDE AND RELATED COMPOUNDS. (TITLE FROM 1994 ONWARDS: PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON COMPOUND SEMICONDUCTORS, Vol. SYMP. 17, September 24, 1990, pages 61-66, XP000146745	
		T. ASAHI, ET AL, "VGF CRYSTAL GROWTH AND VAPOR-PHASE FE DOPING TECHNOLOGIES FOR SEMI-INSULATING 100MM DIAMETER INP SUBSTRATES", 1999 11 <sup>TH</sup> . INTERNATIONAL CONFERENCE ON INDIUM PHOSPHIDE AND RELATED MATERIALS., CONFERENCE PROCEEDINGS., IPRM DAVOS, MAY 16-20, 1999, INTERNATIONAL CONFERENCE ON INDIUM PHOSPHIDE AND RELATED MATERIALS, NEW YORK, NY: IEEE, US, Vol. Conf. 11, May 16, 1999, pages 249-254, XP000931439, ISBN: 0-7803-5563-6	
		YASUMASA OKADA, ET AL, "MECHANISM OF A REDUCTION OF DISLOCATION DENSITIES IN VERTICAL-GRADIENT-FREEZE-GROWN GAAS SINGLE CRYSTALS", JAPANESE JOURNAL OF APPLIED PHYSICS, PUBLICATION OFFICE JAPANESE JOURNAL OF APPLIED PHYSICS., TOKYO, JP, Vol. 29, No. 11 PART 2, November 1, 1990, pages L1954-L1956, XP000232823, ISSN: 0021-4922	

Examiner Signature	Date Considered
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		US			
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Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	Translation <sup>6</sup>
		PATENT ABSTRACTS OF JAPAN, Vol. 0151, No. 77 (C-0829), May 7, 1991 & JP 3 040987 A (NIPPON TELEGR & TELEPH CORP <NTT>), February 21, 1991	
		D. ZEMKE, ET AL, "GROWTH OF INP BULK CRYSTALS BY VGF: A COMPARATIVE STUDY OF DISLOCATION DENSITY AND NUMERICAL STRESS ANALYSIS", PROCEEDINGS OF THE EIGHTH INTERNATIONAL CONFERENCE ON INDIUM PHOSPHIDE AND RELATED MATERIALS 1996., SCHWABISCH GMUND, APR. 21-25, 1996, PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON INDIUM PHOSPHIDE AND RELATED MATERIALS (IPRM), NEW YORK, IEEE, US, Vol. CONF. 8, April 21, 1996, pages 47-49, XP000634431, ISBN: 0-7803-3284-9	

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